

## Claims

I claim:

- Sub E1  
Rule 126
12. An apparatus for securing structural members of a building together comprising:
- a unitary body having a rectangular face, approximately right angled bends, and tabs;
  - said rectangular face having the bulk of the lower part extended downward.
  - said rectangular face having said right angled bends on either side of the short dimension;
  - said rectangular face having said right angled bend on the top side of the long dimension;
  - said top bend forming sheathing tabs;
  - said side bends forming rafter tabs;
  - said rafter tabs having said right angled bends on the bottom;
  - said bends, on said bottom of said rafter tabs, forming plate tabs;

21 20  
13. The apparatus of claim 12 wherein said rectangular face having a predetermined length as a means for accurate lateral-spacing of adjacent roof structural members along a top plate of a wall during roof construction.

22 20  
14. The apparatus of claim 12 wherein said rectangular face having a predetermined width as a means for covering open space between the top of a roof structural member and the top of a top plate.

23 20  
15. The apparatus of claim 12 wherein said lower part of said rectangular face extends down from said face as a means for covering most of the side edges of the top plates of the wall.

24 20  
16. The apparatus of claim 12 wherein said lower part of said rectangular face having a predetermined area and a plurality of nail holes as fastening means to both plates of said top plate of the wall.

17. <sup>25</sup> The apparatus of claim <sup>20</sup> 12 wherein said rectangular face having a plurality of ventilation ribs between said rafter tabs on the short ends, and between said sheathing tabs and said extended lower part of the long ends, as a means for ventilation.

18. <sup>26</sup> The apparatus of claim <sup>20</sup> 12 wherein the axis of said bend forming sheathing tabs is generally parallel to the long dimension of said rectangular face, thereby placing said sheathing tabs in front of said rectangular face, generally parallel to a roof.

19. <sup>27</sup> The apparatus of claim <sup>20</sup> 12 wherein the axis of said bends forming said rafter tabs are generally parallel to the short dimension of said rectangular face, thereby placing said rafter tabs against adjacent roof structural members.

20. <sup>28</sup> The apparatus of claim <sup>20</sup> 12 wherein said rafter tabs having a predetermined area and a plurality of nail holes as a means for attachment to opposite, vertical edges of said adjacent roof structural members, thereby securing said members together at a predetermined distance.

21. <sup>29</sup> The apparatus of claim <sup>20</sup> 12 wherein the axis of said bends forming said plate tabs are generally parallel to said rectangular face, thereby placing said plate tabs on top of a top plate.

22. <sup>30</sup> The apparatus of claim <sup>20</sup> 12 wherein said plate tabs having a predetermined area and a plurality of nail holes as a means for attachment to the horizontal, top edge of said top plate, generally next to the roof structural member.

23. <sup>31</sup> The apparatus of claim <sup>20</sup> 12 wherein said sheathing tabs, said rafter tabs, and said plate tabs having attaching means to adjacent structural members, thereby forming a strong I-beam shape against the roof structural members, as a means for preventing uplift and lateral movement.

24. <sup>32</sup> The apparatus of claim <sup>20</sup> 12 wherein said lower extension of said rectangular face, and said plate tabs having a generally perpendicular aspect to each other, and having attaching means to the adjacent, vertical and horizontal faces of said top plate, thereby placing fasteners in shear, and suppressing thrust forces from the roof to the wall.

25. <sup>33</sup> The apparatus of claim <sup>20</sup> 12 wherein said sheathing tabs, said rafter tabs, said plate tabs, said rectangular face, and said lower part of said rectangular face form a strong, generally box-shape connection between said adjacent rafters, said top plate, and said roof sheathing, thereby preventing uplift, thrusting, and lateral movement of the roof and the wall.

26. <sup>34</sup> A retrofit apparatus for securing structural members of an existing building comprising:

- a. two generally flat, rectangular faces having approximately right angled bends on opposite ends of the short sides, forming rafter tabs having a plurality of nail holes;
- b. said rectangular faces having the lower long side of the bottom extended down, and having a predetermined area and a plurality of nail holes as a means for attachment to outside wall sheathing and an underlying top plate;
- c. said faces having approximately right angled bends on top of the long dimension, forming sheathing tabs;
- d. one of said faces having horizontal tracks with openings on one end, and the other face having runners with arms in the same plane, as a means of lateral sliding of both plates.

27. <sup>35</sup> The apparatus of claim <sup>34</sup> 26 wherein said faces having near mirror image of each other.

28. <sup>36</sup> The apparatus of claim <sup>34</sup> 26 wherein said tracks on one face allow said runner of other face to enter at the opening, while said arms allow horizontal movement along said track.

29. <sup>37</sup> The apparatus of claim <sup>34</sup> 26 wherein said plates move horizontally when coupled together with said runners and said tracks as a means of placing said rafter tabs against vertical faces of adjacent rafters

30. <sup>38</sup> The apparatus of claim ~~26~~<sup>34</sup> wherein said coupled plates move horizontally as a means of placing said rafter tabs against vertical faces of adjacent rafters that were not placed at standard construction spacing.

*E1*  
*cont* 31. <sup>39</sup> The apparatus of claim ~~26~~<sup>34</sup> wherein said rafter tabs, said extended bottoms on said rectangular faces, and said sheathing tabs having attachment to said rafters, said outside wall sheathing, and said underlying top plate forming a box-like shape, thereby preventing uplift, thrusting, and lateral movement of a roof and wall of an existing building during strong winds and earth movements.